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PATENT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Application No.: 10/582,269
PCT Appl. No.: PCT/JP2004/018143
Applicant: Yasushi KOBUCHI et al.
Filing Date: June 9, 2006
Group Art Unit: Unknown
Title: SEPARATOR
Docket No.: 2691-000043/US

REQUEST FOR RECORDATION OF
INTERNATIONAL PRELIMINARY EXAMINATION REPORT

MAIL STOP PCT
2006

October 3,

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

Applicant attaches hereto an English translation of the International Preliminary Examination Report which has been issued in connection with the above-identified application. Please make this document part of the prosecution history of the present application.

Respectfully submitted,

HARNESS, DICKEY & PIERCE, P.L.C.

By:


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Attachment: International Preliminary Examination Report

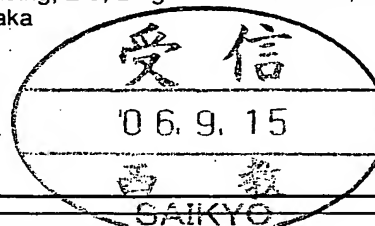
From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

SAIKYO, Keiichiro
Shikishima Building, 2-6, Bingomachi 3-chome, Chuo-ku,
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Date of mailing (day/month/year)

08 September 2006 (08.09.2006)

Applicant's or agent's file reference

62151CT

IMPORTANT NOTIFICATION

International application No.

PCT/JP2004/018143

International filing date (day/month/year)

06 December 2004 (06.12.2004)

Applicant

NITTA CORPORATION et al

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

EP, KR

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

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TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 62151CT	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/JP2004/018143	International filing date (day/month/year) 06.12.2004	Priority date (day/month/year) 09.12.2003
International Patent Classification (IPC) or national classification and IPC H01M8/02, 8/10		
Applicant NITTA CORPORATION		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 8 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of 20 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input checked="" type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))</p> <p>_____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/018143

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 2, 4, 6, 16-17, 19-23, 25-32, 34-44, 46-55 as originally filed/furnished
- 1, 3, 5, 7-9, 14-15, 18, 24, 33, 45, 56-
- pages* 57 received by this Authority on 22.06.2005
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 1, 5 as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 2-4, 6-11 received by this Authority on 22.06.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/25-25/25 as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☒ the description, pages 10-13, 58
- ☒ the claims, nos. 12-32
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____
4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☒ the description, pages 4, 6
- ☒ the claims, nos. 1, 5
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	2-11	YES
	Claims	1	NO
Inventive step (IS)	Claims	6, 11	YES
	Claims	1-5, 7-10	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
Document 1: WO 00/44059 A1 (Asahi Glass Co., Ltd.), 27 July 2000, entire text and fig. 1 to 2 & EP 1154504 A1, all pages			
Document 2: JP 2-168563 A (Ishikawajima Harima Heavy Ind.), 28 June 1990, claims and fig. 1 to 8			
Document 3: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 120977/1986 (Laid-open No. 28251/1988) (Ishikawajima Harima Heavy Ind.), 24 February 1988, claims and fig. 1			
Document 4: JP 2000-243408 A (Toyota Motor Corp.), 08 September 2000, claims, paragraphs [0037] to [0039], and fig. 1, 3, 6 and 7 & DE 19961496 A1, claims and fig. 1, 3, 6 and 7			
Document 5: JP 2003-151572 A (Hitachi, Ltd.), 23 May 2003, claims and fig. 1			
Document 6: JP 2000-138067 A (Toyota Motor Corp.), 16 May 2000, claims and fig. 1 to 11			
Document 7: JP 2001-307747 A (Toyota Motor Corp.), 02 November 2001, claims and fig. 1			
Document 8: JP 2001-357859 A (Riken Corp.), 26 December 2001, claims and fig. 1			

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

Document 9: JP 2001-351642 A (Riken Corp.), 21 December 2001, claims and fig. 1

Document 10: JP 2003-217611 A (NTN Toyo Bearing Co., Ltd.), 31 July 2003, claims, paragraphs [0021] to [0023] and fig. 2

Claim 1

The invention set forth in claim 1 lacks novelty and does not involve an inventive step in the light of document 1 cited in the international search report.

Document 1 discloses a separator comprising a separation part that separates the flow channel for supplying the fuel gas from the flow channel for supplying the oxidant gas, wherein resin layers (1a and 1b) with flow channels formed therein are provided to the surfaces of the planar metal plate (2) that serves as the core material of the separation part.

Such being the case, document 1 can be said to disclose the invention set forth in claim 1.

Claims 2 and 5

The inventions set forth in claims 2 and 5 do not involve an inventive step in the light of document 1, newly cited documents 2 to 3, document 4 cited in the international search report, and newly cited documents 5 to 7.

Documents 2 to 3 disclose separators comprising a separation part and a seal part with sealing protrusions that have a U-shaped cross section; however, said documents do not disclose the feature wherein resin layers with flow channels formed therein are provided to

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

the separation part, or the feature wherein a rubber layer is formed on the surface of the metal plate.

On the other hand, it is not considered to be in any way difficult to employ the configuration disclosed in document 1, wherein resin layers with flow channels formed therein are provided to the separation part, in the inventions disclosed in documents 2 to 3; furthermore, the technical feature wherein a rubber layer is formed on the surface of a metal plate is well known in the technical field in question, as disclosed in documents 4 to 7.

Claims 3 to 4

The inventions set forth in claims 3 to 4 do not involve an inventive step in the light of documents 1 to 7 and newly cited documents 8 to 9.

Fuel cell separators wherein a highly conductive layer is formed upon the region that comes into contact with the electrolyte assembly in order to decrease the contact resistance therebetween can be said to be well known in the technical field in question, as disclosed in documents 8 to 9.

Claims 6 and 11

The inventions set forth in claims 6 and 11 are novel and involve an inventive step in relation to all of the documents that are cited in the international search report.

The inventions set forth in claims 6 and 11 are not disclosed in any of the cited documents, and would not have been easy for even a person skilled in the art to conceive of.

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Claim 7

The invention set forth in claim 7 does not involve an inventive step in the light of documents 1 to 9.

Documents 8 to 9 indicate that the highly conductive layer is formed from carbon, and it is not considered to be in any way difficult to form a highly conductive carbon layer by spraying a carbon dispersion upon a surface.

Claim 8

The invention set forth in claim 8 does not involve an inventive step in the light of documents 1 to 9 and newly cited document 10.

The technical feature wherein a coating layer is formed upon the surface of the metal plate is well known in the technical field in question, as disclosed in documents 4 to 7 and 10.

Claim 9

The invention set forth in claim 9 does not involve an inventive step in the light of documents 1 to 10.

Documents 4 and 10 indicate that a coating layer is formed upon the surface of a metal plate via a layer that functions as an adhesive layer.

Claim 10

The invention set forth in claim 10 does not involve an inventive step in the light of documents 1 to 10.

Document 10 discloses a feature wherein a coating layer is formed upon the surface of a metal plate via a

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citations and explanations supporting such statement

polyaniline thin film layer that functions as an adhesive layer.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box I.4

Pages 4 and 6 of the Description

The replacement sheets for pages 4 and 6 of the description, which were received by the International Preliminary Examining Authority on 22 June 2005, amend said pages so as to set forth a "circular form."

On the other hand, although the international application as originally filed sets forth a "U-shaped form, a V-shaped form and a trapezoidal form," said application does not mention a "circular form."

Such being the case, the amendments to pages 4 and 6 of the description, which have been appended to the present report, are considered to go beyond the scope of the disclosures in the present international application as originally filed.

Claims 1 and 5

Likewise, the replacement sheet including claims 1 and 5, which was received by the International Preliminary Examining Authority on 22 June 2005, amends said claims so as to set forth a "circular form."

On the other hand, although the international application as originally filed sets forth a "U-shaped form, a V-shaped form and a trapezoidal form," said application does not mention a "circular form."

Such being the case, the amendments to claims 1 and 5, which have been appended to the present report, are considered to go beyond the scope of the disclosures in the present international application as originally filed.